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VXA-210

Service Manual

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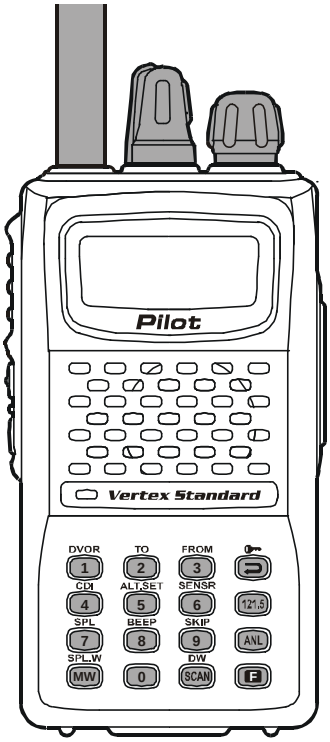

Pilot

The Vertex Standard **VXA-210** ***Pilot*** is a compact, stylish, solid hand-held transceiver providing communication (transmit and receive) capability on the International Aircraft Communication Band ("**COM**" band: 118 ~ 136.975 MHz), and it additionally provides VOR and CDI navigation features on the "**NAV**" band (108 ~ 117.975 MHz).

The **VXA-210** includes Temperature display with our exclusive Omni-Glow™ display back-light for minimal degradation of your night vision, NOAA weather band monitoring, 8-character Alpha/Numeric Display, 50 Memory Channels, and 100 "Book Memory" Channels. And the optional Barometric Pressure Unit (**SU-1**) provides readout of barometric pressure, altitude, and density altitude.

The following pages describe the Controls & Connectors, Accessories & Options, and Specification of the **VXA-210**. With proper care and operation, the transceiver will provide many years of reliable communications.

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Specifications

General

Frequency Range: TX: 118.000 - 136.975 MHz, RX: 108.000 - 136.975 MHz, Weather Channels (WX-01 - WX-10: USA version only)
Channel Spacing: 25 kHz
Emission Type: TX: AM, RX: AM & FM (FM: for receiving the Weather Channels, USA version only)
Supply Voltage: 6.0 - 15.0 VDC
Current Consumption (approx.): 10 µA (power off), 30 mA (battery saver on, saver ratio 1:5) 65 mA (squelch on), 190 mA (receive), 1 A (transmit 1.5 W Carrier)
Temperature Range: +14 °F to + 140 °F (–10 °C to +60 °C)
Case Size (W x H x D): 2.3 x 4.3 x 1.2 inch (58 x 109 x 30 mm) w/FNB-64
Weight (approx.): 12.2 oz (345 grams) with FNB-64, antenna, and belt clip

Receiver

Circuit Type: Double-conversion superheterodyne
IFs: 35.4 MHz & 450 kHz
Sensitivity: <0.8 µV (for 6 dB S/N with 1 kHz, 30 % modulation)
Selectivity: >8 kHz/–6 dB
Adjacent CH. Selectivity: <25 kHz/–60 dB
AF Output (@7.2 V): 0.4 W @ 8 Ohms, 10 % THD

Transmitter

Power Output (@ 7.2 V): 5 W (PEP), 1.5 W (Carrier Power)
Frequency Stability: Better than ±10 ppm (+14 °F to + 140 °F [–10 °C to +60 °C])
Modulation System: Low Level Amplitude Modulation
Spurious Emission: > 60 dB below carrier
Int. Microphone Type: Condenser
Ext. Mic. Impedance: 150 Ohms

Specifications are subject to change without notice or obligation.

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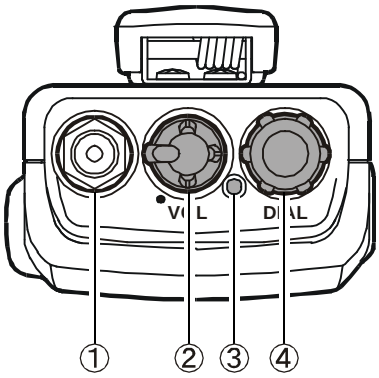
CONTROLS & CONNECTORS

① Antenna Jack
This SMA jack accepts the supplied flexible antenna, or another antenna designed to provide 50 Ω impedance on the Aircraft Communication Band.

② **POWER/VOLUME** Knob
Turn this control clockwise to turn the radio on and to increase the volume. Counterclockwise rotation into the click-stop will turn the radio off.

③ **BUSY/TX** Indicator Lamp
This lamp glows **green** when a signal is being received and **red** when transmitting.

④ **DIAL** Selector Knob
This 20-position detended rotary switch tunes the operating frequency or selects the memory channels.
Pressing this knob downward momentarily selects the tuning methods among the **VFO** (Variable Frequency Oscillator), **MR** (Memory Recall), **BOOK** (Pre-Programmed Memories), and **WX** (Weather Channel Memories) mode.
Note: The **WX** mode is available in the USA version only.



⑤ LCD (Liquid Crystal Display)
The display shows the selected operating conditions as indicated on the next page.

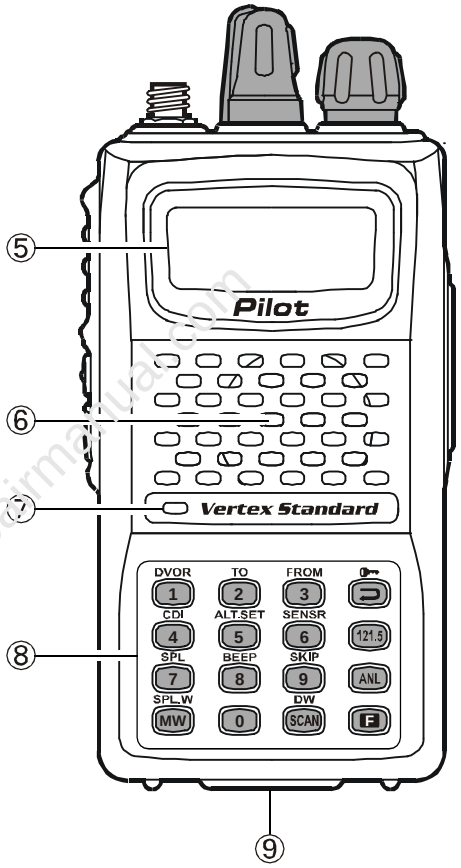
⑥ Loudspeaker
The internal speaker is located in this position.

⑦ Microphone
Speak across this opening in a normal voice level while pressing the **PTT** switch, to transmit.

⑧ Keypad
Several keys have dual functions.

The *primary* functions are labeled on the key top (activated by simply pressing the key momentarily), while the *secondary* functions are labeled in yellow above the top edge of the key (activated by pressing the [**F**] key first, then the indicated key).

These functions are described in detail on next page.



⑨ Battery Pack Latch
Open this latch for battery removal.

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